

in the male, the twenty-five jointed anterior antennæ, together with the characters of the posterior antennæ and mouth-organs, are the characters upon which rest the claims of *Calanus* to generic rank. The species are probably very numerous, and are found near the surface of the sea in all parts of the world. In some species, though perhaps not in all, there is a remarkable difference between the posterior foot-jaws of male and female, those of the male being somewhat smaller, stouter, and armed on the outer margin, near the apex, with two or more stout and profusely plumose recurved setæ.

1. *Calanus finmarchicus* (Günner) (Pl. I. figs. 1-10).

*Monoculus finmarchicus*, Günner, Act. Hafn. x., 175, figs. 20-23 (1765).

*Cetochilus septentrionalis*, Goodsir, Edin. New Phil. Journ. 35, p. 339, t. vi. figs. 1-11 (1843).

„ „ Baird, Nat. Hist. Brit. Entom., p. 235, t. xxx., figs. 1 *a-g* (1850).

„ *helgolandicus*, Claus, Die frei lebenden Copepoden, p. 171, t. xxvi., figs. 2-9 (1863).

*Calanus finmarchicus*, Boeck, Oversigt over de ved Norges Kyster iagttagne Copepoder, p. 8 (1864), Brady, Monogr. of the Copepoda of the British Islands, vol. i. p. 38, pl. i. figs. 1-12 (1878).

*Calanus magnus, borealis* and *elegans*, Lubbock, Ann. Mag. Nat. Hist., ser. 2, vol. xiv. (1854).

Length, 1-7th of an inch (3.5 mm.).<sup>1</sup> Forehead broadly rounded, rostrum long, slender and bifid, anterior antennæ twenty-five jointed, as long as the body, each joint bearing two or three short setæ (except those near the base in the female), the twenty-third and twenty-fourth joints each with a long apical seta; most of the joints of the male antenna (fig. 1) are constricted at the point of articulation, and bear fusiform or club-shaped appendages at the apices. The branches of the posterior antennæ (fig. 3) are stout and nearly equal; those of the mandible-palp (fig. 4) are short and nearly equal, one indistinctly four-jointed, the other two-jointed, with the first joint much swollen. The swimming feet are long and slender, terminal spines slender and without serratures (fig. 9), the first joint of the peduncle of the fifth pair, in both sexes, has its inner margin bordered with about fifteen sharp teeth of equal size throughout; the outer branch of the right side, in the male, has its first two joints much elongated (fig. 10), equalling in length the three joints of the left limb; the last joint is much shorter, ovate, and bears three or four small slender setæ near its apex. The mouth is provided with two very strongly toothed lips (fig. 5).

*Habitat*.—Taken in the tow-net, off Cape Howe, Australia, at night, and in lat. 36° 32' S., long. 132° 52' W. (Station 287).

In my preliminary notes and drawings of these Australian specimens, I set the species down as undescribed, relying upon the marked moniliform character of the anterior male antennæ, and the peculiar reflexed setæ of the posterior foot-jaw in the same sex. But further examination of northern specimens has showed me that both those characters, not

<sup>1</sup> The measurements are always exclusive of the tail setæ.